This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Cancelled)

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Currently Amended) The switch according to claim [1] 7, wherein the optical demultiplexer, optical multiplexer and each double-sided reflector is fabricated on a silicon substrate.

6. (Currently Amended) The switch according to claim [1] 7, wherein at least one wavelength channel signal includes a plurality of wavelengths within a predetermined free spectral range (FSR).

7. (Currently Amended) [The switch according to claim 1] An optical four-port wavelength-selective crossbar switch, comprising:

an optical demultiplexer separating a wavelength division multiplexed (WDM) signal having a plurality of wavelengths into a plurality of wavelength channel signals, each wavelength channel signal corresponding to at least one wavelength of the WDM signal;

an optical multiplexer receiving a wavelength channel signal corresponding to each wavelength of the separated WDM signal and forming an output WDM signal;

an input optical circulator having a first port, a second port and a third (drop) port, the input optical circulator receiving the WDM signal through the first port and coupling the WDM signal to the optical demultiplexer through the

second port, a drop signal being received through the second port of the input optical circulator being output from the drop port of the input optical circulator;

an output optical circulator having a first (add) port, a second port and a third port, the output optical circulator receiving the output WDM signal from the optical multiplexer through the second port and outputting the output WDM signal through the third port, an add signal coupled to the add (first) port being output from the second port of the output optical circulator; and

at least one double-sided reflector being disposed in a path of a selected wavelength channel signal between the optical demultiplexer and the optical multiplexer, each double-sided reflector being selectably operated so that in a first mode of operation a first side of the double-sided reflector reflects a selected wavelength channel signal corresponding to the wavelength channel signal path in which the double-sided reflector is disposed back to the second port of the input optical circulator, and so that a second side of the doubled-sided reflector reflects an add signal having at least one wavelength corresponding to the wavelength channel signal path in which the double-sided reflector is disposed back to the second port of the output optical circulator and in a second mode of operation allowing the selected wavelength channel signal corresponding to the wavelength channel signal path in which the double-sided reflector is disposed to pass from the optical demultiplexer to the optical multiplexer, wherein at least one of the optical demultiplexer and the optical multiplexer is wavelength-cyclic.

8. (Currently Amended) The switch according to claim [1] 7, wherein at least one double-sided reflector is a mechanical anti-reflection switch (MARS).

9. (Currently Amended)s The switch according to claim [1] 7, wherein at least one double-sided reflector is a reflective thin-film interference filter.

10. The switch according to claim 9, wherein the double-sided reflector is a series of reflective thin-film interference filters, each of which corresponds to a

different free spectral range (FSR) of the wavelength cyclic multiplexer and demultiplexer and each of filter can be set in either IN or OUT state.